

**Notice of Allowability**

Application No.

10/010,026

Examiner

Craig W. Kronenthal

Applicant(s)

PELLEY ET AL.

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/19/06.
2. ☒ The allowed claim(s) is/are 5-16, 21-43, 45-57, 59-65, 67 and 68.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

JOSEPH MANCUSO  
SUPERVISORY PATENT EXAMINER

### **REASONS FOR ALLOWANCE**

1. Applicant's amendment filed January 19, 2006 has been entered and made of record.

2. The following is an examiner's statement of reasons for allowance:

Independent claims 67, 68, 32, 39, 41, 43, 46, 54, 56, and 59 are allowable over the prior art of record. Claims, which depend from these independent claims, are therefore allowed.

Independent claims 32 and 46 recite the limitations of: wherein the step of producing modified coefficient values does not use coefficients of magnitude greater than the said threshold T and does not use the corresponding information symbols of the pseudo random symbol sequence. The combination of these features as cited in the claims in combination with the other limitations of the claims, are neither disclosed nor suggested by the prior art of record. Inoue et al. ("A Digital Watermark Based on the Wavelet Transform and its Robustness on Image Compression", hereinafter Inoue) discloses embedding watermark data in only those coefficients having a magnitude less than a predetermined threshold. Donescu et al. (PN 6,674,873, hereinafter Donescu) discloses producing the modified coefficient values by adding an offset to the coefficients, wherein the offset is an information symbol of a pseudo random symbol sequence modulated by the watermark data. The combination of these two references fails to disclose omitting pseudo random symbols corresponding to the coefficients

above the threshold. Instead the combination of these references would suggest that all symbols be used regardless of which coefficients are chosen for embedding.

Independent claims 39, 54, and 59 recite the limitations of: wherein the correlating step does not use coefficients of magnitude greater than the said threshold  $T$  and corresponding symbols of the pseudo random symbol sequence. The combination of these features as cited in the claims in combination with the other limitations of the claims, are neither disclosed nor suggested by the prior art of record.

Independent claims 41, 43, and 56 recite the limitations of: correlating the clipped and unclipped coefficients with a pseudo random symbol sequence to detect data embedded in the information signal. The combination of these features as cited in the claims in combination with the other limitations of the claims, are neither disclosed nor suggested by the prior art of record.

Independent claims 67 and 68 recite the limitations of: calculating modified coefficient values where  $\alpha$  is calculated dependent on the value of  $S$  being positive and negative to identify a corresponding binary value of the data symbol being embedded. The combination of these features as cited in the claims in combination with the other limitations of the claims, are neither disclosed nor suggested by the prior art of record.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### CONTACT INFORMATION

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig W. Kronenthal whose telephone number is (571) 272-7422. The examiner can normally be reached on 8:00 am - 5:00 pm / Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 6, 2006  
Craig Kronenthal

  
JOSEPH MANCUSO  
SUPERVISORY PATENT EXAMINER